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(71) Applicant(s)

Plasto SA

(Incorporated in France)

42 Rue de Longvic, 21300 Chenove, France

(72) Inventor(s)

Laurent Tavernier

Luc Tran Vac

(74) Agent and/or Address for Service

Urquhart-Dykes & Lord

New Priestgate House, 57 Priestgate,

PETERBOROUGH, PE1 1JX, United Kingdom

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(56) Documents Cited

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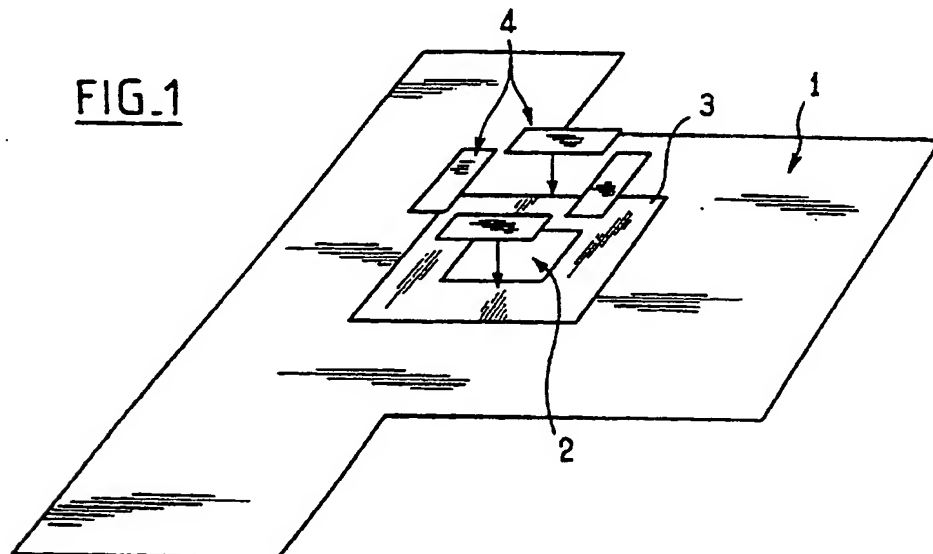
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(54) Abstract Title

Surgical drape with adjustable opening

(57) A surgical drape 1 is of the type comprising an opening 2 of defined dimensions delimiting an operating zone, and is characterized in that the dimensions of the opening 2 can be adjusted by means of at least two separate strips 4, each of these being equipped, on one of their faces, with a repositionable adhesive.



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FIG.1

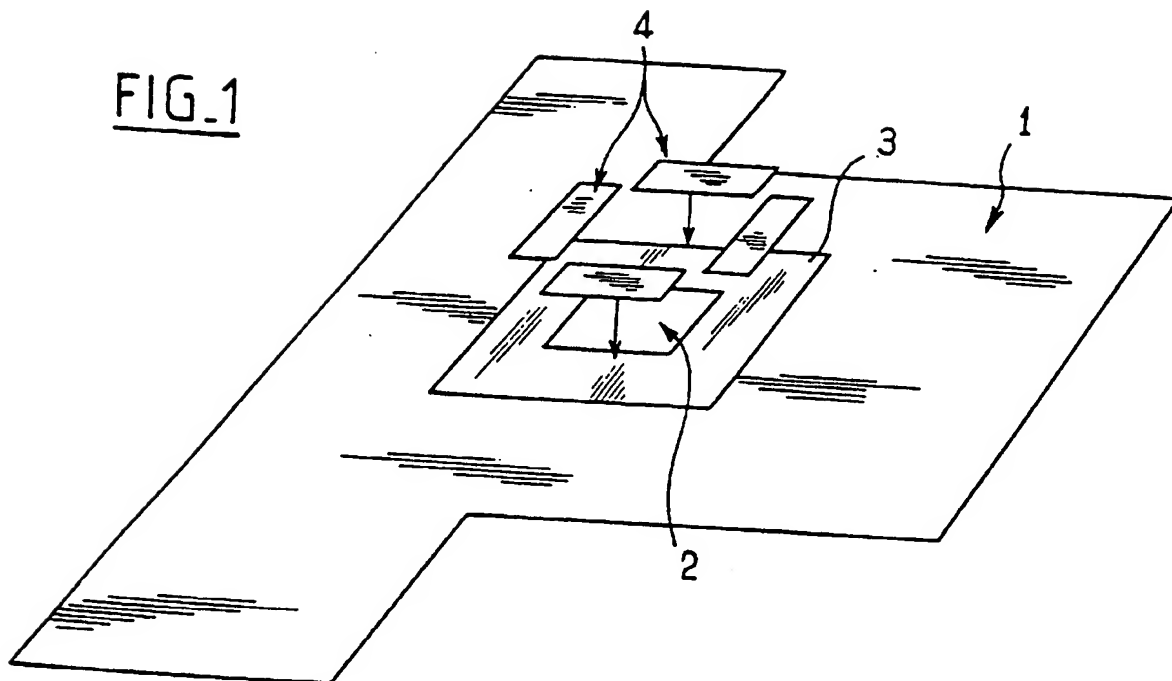


FIG.2

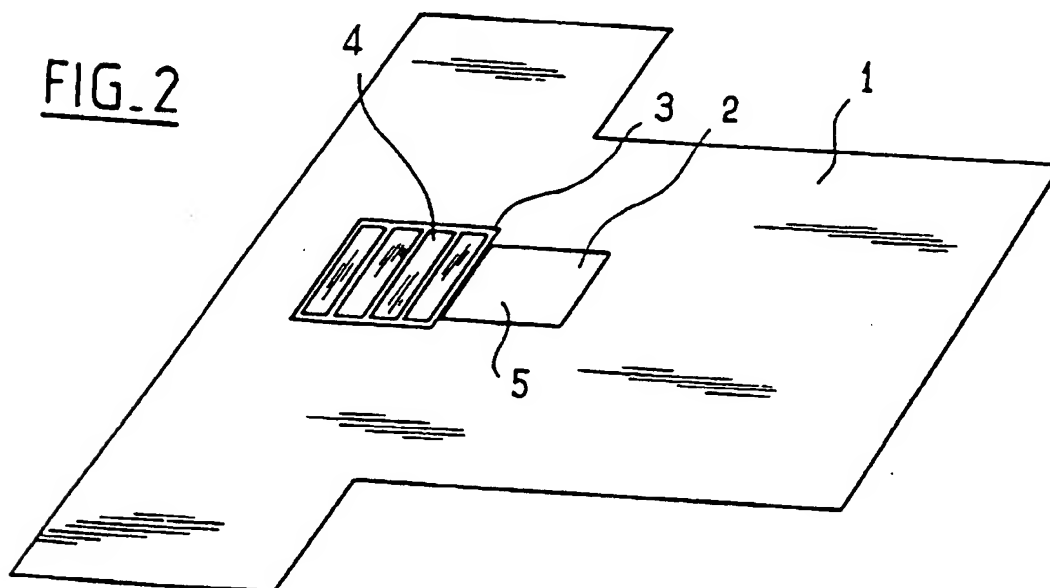


FIG. 3

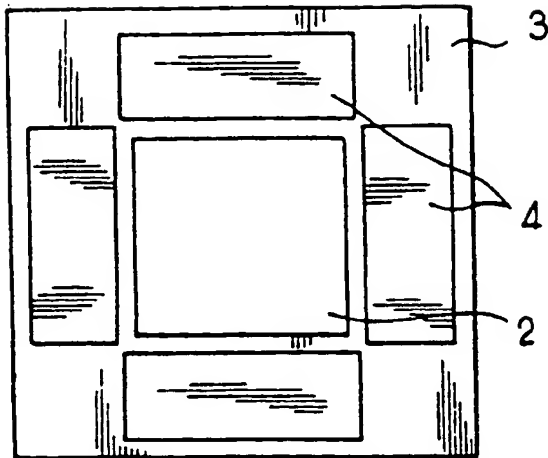


FIG. 4

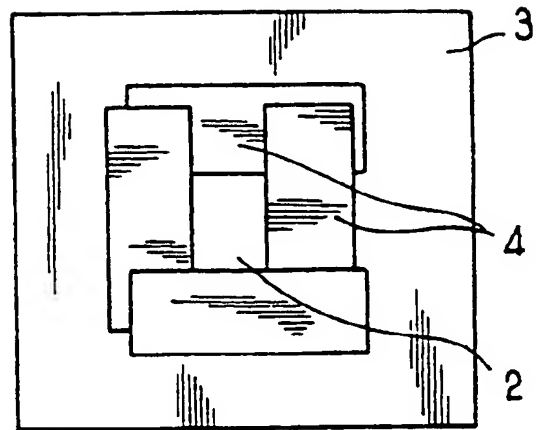


FIG. 5

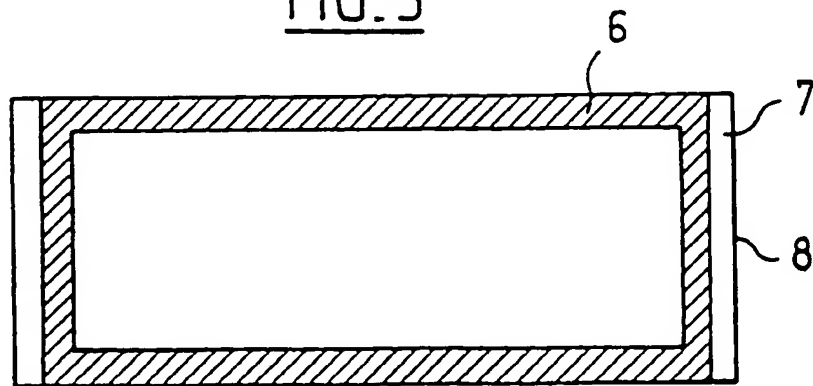
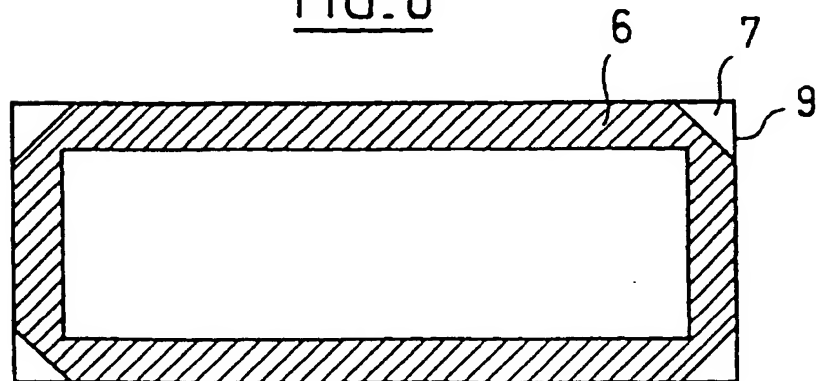


FIG. 6



Adjustable surgical drape

The present invention relates to a surgical drape, in which the size of the window can be adjusted as a function of the operation being performed and as a function of the extent of the operating surface area required by the surgeon.

Prior art

The role of the surgical drape is to establish, on the patient, a zone within which the surgeon can operate, and also to isolate the patient from the surrounding environment and enhance the cleanliness and aseptic nature of the operation by virtue of the property of absorbing the body fluids and by virtue of an antimicrobial action. Surgical drapes are generally classed in two principal categories: surgical drapes which can be reused, and surgical drapes which are used only once. Reusable surgical drapes must be washed meticulously, and, in particular, it is often difficult to eliminate the adhesives which have been used for fixing the drape; moreover, it is important to ensure complete sterilization of these fabrics which have been in contact with at-risk areas. However, the reusable surgical drapes have the advantage of often being more absorbent and of being less expensive to use. The surgical drapes which are used only once and discarded are more expensive, but they practically eliminate the risks of contamination and they can be treated using antimicrobial compositions during manufacture.

Another aspect is that the surgical drape has to cover the patient while allowing access to the area to be operated on. To protect the patient

while at the same time creating an access window to the operating zone, the surgeon can simply cut the drape to create an opening. However, this method is not recommended because it can generate particles or fibres which then become vectors of contamination, and it is practically impossible to fix the drape correctly. A great many arrangements have been proposed, for example those described in documents US 3 887 667, EP 140 857, EP 169 316, EP 185 002, EP 619 099, WO 94 24954, EP 631 760, FR 2 720 234, WO 95 10986 or WO 96 01594. Among the most recent documents, FR 2 720 234 and WO 96 01594 propose systems of four drapes which are equipped with an adhesive edge, by means of which drapes it is possible to form the operating window, the size of which can be adjusted. However, such an arrangement has the disadvantage of having several overlapping thicknesses, creating edges which are not fixed, and it requires quite a long period of time for it to be put in place. Moreover, as the surgical drapes are either disposable or recyclable in their entirety, it is difficult to separate the heavily contaminated parts from the only slightly soiled parts.

Object of the invention

The present invention proposes a novel type of surgical drape, characterized in that it comprises a window which can be adjusted by means of repositionable self-adhesive elements.

Description of the invention

According to the invention, the surgical drape is obtained from a drape formed in one piece and provided with an opening or window whose size essentially corresponds to the largest size of

window normally needed to perform a given type of operation. Arranged on this drape, and preferably in proximity to the window, there are several self-adhesive strips which are provided, on one
5 face, with a pressure-sensitive and repositionable adhesive. By arranging these self-adhesive strips around the limits of the principal opening, the surgeon is at one and the same time able to reduce the size of the window as he sees fit, give the
10 window the shape he wishes, fix the drape on the patient's skin and form a leakproof seal between the drape and the patient. This set of strips, which can be offered in the form of a single pack with the strips fixed by their adhesive around or
15 in proximity to the window, permits rapid and easily adjustable use.

Other advantages and characteristics will become clear from reading the description of several embodiments and from studying the attached
20 drawings, in which:

- Figure 1 is an exploded perspective view of the surgical drape according to a first embodiment of the invention,
- Figure 2 is a plan view of the surgical
25 drape according to another embodiment of the invention,
- Figures 3 and 4 are plan views of the opening before and after it is reduced in size,
- Figures 5 and 6 are plan views of two
30 types of repositionable adhesive strips which can be used in the embodiments represented in Figures 1 and 2.

Figure 1 shows a surgical drape 1 in which there is an opening or window 2 which is of
35 predetermined dimensions, and around which a zone

3 is formed which is intended to receive repositionable self-adhesive strips 4.

Figure 2 shows another form of surgical drape according to the invention, in which the
5 repositionable self-adhesive strips 4 are arranged in parallel, on just one side 5 of the window 2, the said side 5 preferably being the side which is the least exposed to the discharges, that is to say, in the case of an operation on the thoracic
10 cage or abdomen for example, the side which is situated towards the patient's head.

Figure 3 shows a plan view of the zone 3 of the surgical drape represented in Figure 1, on which zone four strips 4 are arranged, before use,
15 around the window 2, and thus before its size has been reduced.

Figure 4 shows an example of use of the surgical drape, in accordance with which the size of the window 2 has been reduced by moving the
20 repositionable self-adhesive strips 4 in such a way that they come to overlap the border of the original window.

By comparing Figures 3 and 4, the "operational" positioning of the self-adhesive
25 strips has made it possible at one and the same time to reduce the size of the window to adapt it perfectly to the intervention, to fix the surgical drape on the patient's skin by means of the strips, to create a leakproof seal all around the
30 operating site, and to obtain an absorbent perimeter all around the operation zone.

Figures 5 and 6 show the lower face of the repositionable adhesive strips 4, that is to say the face which includes a layer of pressure-
35 sensitive adhesive material: according to a

preferred embodiment of the invention, the adhesive layer 6 is arranged only on the circumference of the strip, and areas 7 are left - either on a side 8 or at a corner 9 - by means of which it is easy to grip the strip in order to detach it and place it in the desired position.

Detailed description

To produce the surgical drape according to the invention, use is made of a drape 1 of a conventional type which is made of an impermeable and absorbent material on the upper face, and which can be of a disposable or recyclable type; an opening 2 is then made, the dimensions of which correspond to the largest window necessary for the type of operation envisaged, and a zone 3 around or in proximity to this window is treated so as to give it non-adhesive properties; this result can be obtained by treating the surface of the drape with a non-adhesive varnish, for example a varnish based on acrylates or based on silicone. A non-adhesive surface can also be obtained by fixing on the drape a polyethylene, polypropylene or polyester film, whose face remaining accessible will be treated with silicone.

The adhesive strips 4 are obtained starting from an absorbent material customarily used for the manufacture of surgical drapes.

The material preferably used is an absorbent material, either woven or non-woven, which is impermeable to liquids and has been treated with antimicrobial means.

This type of material has an absorbent face and an impermeable smooth face which is obtained by coating with a PE film, by which means it is possible to obtain the leakproofness to liquids.

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(Use as many sheets as necessary)

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Complete if Known

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First Named Inventor	Gil
Art Unit	3772
Examiner Name	Jackson B.L.
Attorney Docket Number	10008.0113USI1

U. S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ *Number ⁴ *Kind Code ⁵ (if known)				
	1	WO 2005/053754	06/16/2005	Hare and Threlkeld		
	2	GB 2326100	12/16/1998	Urquhart-Dykes & Lord		

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